

PRECIPITATION.

Upon chart No. III is represented the amount of rain-fall and melted snow. At Jacksboro, in northern Texas, several sprinkles were reported, but not sufficient to measure; same from Ft. McKavett, northwest of San Antonio, Texas. Stations reporting less than one-tenth of an inch: Wickenburg, A. T., 0.01; Muri-copa, A. T., 0.08; Yuma, Cal., 0.09; Ft. Larned, Ks., 0.08; Breckenridge, 0.03; Pembina, 0.03.

Total snow-fall during the month: For northern New England it varies from 14 to 31 inches; southern New England, 9 to 24; New York, 11 to 48; Middle Atlantic States, 1 to 26; Lower Lake region, 9 to 35; Upper Lake region, 4 to 37; Ohio valley, 4 to 21; Tenn., 5 to 17; N. Car., 1.5 to 22; Miss. and La., 2 to 15; Arkansas, 1 to 4; Upper Miss. valley, 4 to 17; Lower Mo. valley, 4 to 21. *Depth of snow at close of month*: northern New Eng., 24 to 44 inches; southern New Eng., 4 to 20; Middle States, 0 in southern portion to 32 in northern New York; Lower Lake region, 0 in western portion to 32 in eastern portion; lower Ohio valley, none; the Northwest, none in southern portions, 4 in in southern Minn. and southeastern Dakota.

Cloudy Days.—The number of days on which the cloudiness has averaged eight-tenths or more, as reported by the Voluntary Observers, ranges for New England from 5 to 13; Middle States, 5 to 17; South Atlantic States, 4 to 13; Gulf States, 5 to 17; Ohio valley to the Upper Lake region, 5 to 20; the Northwest, 2 to 15.

The number of days on which *rain* or *snow* has fallen, ranges as follows for the Signal Service stations: New England, 7 to 18; Middle Atlantic States, 10 to 16; South Atlantic States, 6 to 16; Eastern Gulf States, 9 to 16; Western Gulf States, 8 to 18; Ohio valley and Tennessee, 12 to 17; Lower Lake region, 14 to 23; Upper Lake region, 4 to 23; Northwest, 4 to 12; Rocky Mountains stations, 5 to 14; California coast, 6 to 9. Along the Lakes the precipitation in the form of snow has frequently been very light, and at times not sufficient to measure. During severe snow storms it is a difficult task to measure the precipitation, therefore Chart No. III is only an approximation for the northern sections of the country.

Droughts.—Scarcity of water at Keokuk on the 4th. Dumbarton and Contoocookville, N. H., water very scarce, some farmers being compelled to melt snow to get water for stock. Pennville, Pa., during first half of month, streams very low. West Charlotte, Vt., drought continued all the month; no rain until February 1st. North Argyle, N. Y., drought not allayed 18th.

RELATIVE HUMIDITY.

The average relative humidity for the month, as reported from the Signal Service stations, ranges as follows: in New England, 69 to 79 per cent; Middle Atlantic States, 73 to 84; South Atlantic States, 72 to 83; Gulf States, 70 to 80; Indian Territory, Arkansas, Tennessee and the Ohio valley, 67 to 76; Lower Lake region, 72 to 80; Upper Lake region, 67 to 82; Northwest, 66 to 79; plains of Kansas and Nebraska, 74 to 81; Rocky Mountain stations, 47 to 75; San Diego and San Francisco, 66; Portland, Or., 74; Mt. Washington, 87.

WINDS.

Prevailing Winds.—These are shown upon Chart No. II, the arrows flying with the wind. At Fort Sully they have blown most frequently from the NW.; Portland, Or., S. The *maximum* hourly velocities have been given in the description of the movements of high and low pressure-areas.

Total Movements of the Air.—The following are the largest total movements, as recorded at the Signal Service stations: Pike's Peak, 19,663 miles; Thatcher's Island, 12,084; Sandy Hook, 11,372; Cape May, 11,213; Cape Lookout, 10,960; Kitty Hawk, 10,720; Grand Haven, 10,096; Cheyenne, 10,052. The smallest movements have occurred at the following stations: Nashville, 1,889 miles; Lynchburg, 2,031; Augusta, 2,153; Shreveport, 2,741; San Diego, 2,816; Baltimore, 2,903; Knoxville, 2,929. On Mt. Washington it has been impossible to obtain a continuous record.

VERIFICATIONS.

Indications.—As worked up three times daily, and issued to the public, they have been carefully compared with the actual conditions during the succeeding twenty-four hours, and the following result obtained, viz: the percentage verified averages 91.8 for New England; 89.0, Middle States; 85.4, South Atl. States; 84.8, Eastern Gulf States; 85.5, Western Gulf States; 88.0, Ohio valley and Tennessee; 90.5, Lower Lake region; 88.1, Upper Lake region; 89.0, Upper Miss. valley; 89.0, Lower Mo. valley. For the whole country the average verified is 88.2 per cent. There were 7 omissions to predict out of 3,721, or 0.18 per cent.

Cautionary Signals.—Grand Haven and Milwaukee are the only stations along the Lakes at which signals were displayed, owing to the suspension of navigation. Out of 229 ordered to be displayed along Lake Michigan, the Atlantic and Gulf coasts, 172 were justified, 13 were lowered too soon, 1 was ordered late, and 57 were reported not justified. From scattered stations 27 cases were reported, in which the hourly wind velocity reached 25 miles and over, without the display of signals, except on the 24th from the Middle Atl.